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ABSTRACT

This report discusses the outcomes of a study that examined a hypothesis about the acquisition of behavioral inhibitions offered by Hans Eysenck, which suggests that what is often described as morality or conscience is acquired through conditioning experiences to which individuals respond differently according to their temperament-based personality traits. Eysenck's theory of personality has three temperament-based traits: Psychoticism (P), Extraversion (E), and Neuroticism (N). He suggests that individuals who are low on both E and N traits will be more likely to acquire behavioral inhibitions than individuals who are high on both traits. All participants in the study (n=98) were suspended from middle or high school for disciplinary reasons and attended a transitional learning center as an alternative to an out-of-school suspension. Two instruments were administered to the participants: the Junior Eysenck Personality Questionnaire to assess personality and the Externalizing Scale of the Youth Self-Report to assess self-reported conduct problems. Results from the assessments indicate students low on both the E and N traits had lower scores on the Externalizing Scale than those high on both traits. (Contains 30 references.) (CR)

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Inhibition of Antisocial Behavior and Eysenck's Theory of Conscience

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Abstract

This study examines a hypothesis about the acquisition of behavioral inhibitions offered by Hans Eysenck, which suggests that what is often described as morality or conscience is acquired through conditioning experiences to which individuals respond differently according to their temperament-based personality traits. Eysenck theory of personality has three temperament-based traits: Psychoticism (P), Extraversion (E), and Neuroticism (N). He suggests that individuals who are low on both the E and N traits will be more likely to acquire behavioral inhibitions than individuals who are high on both traits. This study evaluated his hypothesis. There was positive support for the hypothesis. Participants who scored low on the E, and N traits scored significantly lower on self-reported behavior problems than those scoring high on the two traits. The results, limitations of the study, and suggestions for future research are discussed.

Inhibition of Antisocial Behavior and Eysenck's Theory of Conscience

The difficulties posed for public school programs by children and adolescents with antisocial behavior have been widely debated (Maag & Howell, 1991; Nelson, Center, Rutherford, & Walker, 1991; Nelson, Rutherford, Center, & Walker, 1991). Many students with antisocial behavior have been described as "repetitive and persistent" violators of rules and of the rights of others and as exhibiting " . . . a recurrent pattern of negativistic, defiant, disobedient, and hostile behavior. . . " (American Psychiatric Association, 1994, p. 91). The problem of antisocial behavior is a complex one with no certain solution in sight. There are many factors that contribute to the development of conduct problems (McMahon & Wells, 1998; Sprague & Walker, 2000), including a number of biological factors (Niehoff, 1999; Chess & Thomas, 1987).

The role of morality in behavior has been an area of long standing interest to psychologists (Erikson, 1964; Francis & Montgomery, 1993; Hogan, 1975; Kohlberg, 1964, 1969; Likona, 1991; Piaget, 1935; Rest, Cooper, Coder, Masanz, & Anderson, 1974; Robins, 1978). Kohlberg (1964) defined morality as a set of cultural rules for social action that have been internalized by an individual. Similarly, Eysenck (1976), a British psychologist and personality theorist, defined morality as the internalization of social values and norms. Eysenck stated that the study of morality must begin by asking how to account for good behavior rather than how to account for bad behavior. Religion employs the concept of conscience to explain socialized conduct, but doesn't provide an account of how it develops. Eysenck offered a hypothesis about the development of conscience as part of his theory of personality.

Eysenck (1976) offered an explanation for the development of conscience rooted in biological factors related to temperament. Eysenck's hypothesis was that conscience is acquired through a conditioning paradigm, the response to which varies among individuals according to their temperament-based personality characteristics. He thought that conscience is a conditioned reflex acquired through respondent learning. Respondent learning takes place through the association of a neutral stimulus with a potent stimulus, which has the power to elicit a reflex response. This leads to the neutral stimulus acquiring eliciting power similar to the stimulus with which it was paired. One such class of reflex responses is emotion. Eysenck suggested that emotional responses are the basis for conscience. Thus, conscience can be thought of as negative conditioned emotional responses elicited by engaging in or by anticipating engaging in a prohibited behavior. In such a case, the prohibited behavior or its cognitive representation functions as a conditioned negative stimulus.

Eysenck (1976) suggested that many behaviors disapproved of by society are probably reinforcing in a way that is immediately satisfying to the individual performing them. Thus, such behavior functions as an antecedent for reinforcement, which in turn maintains the behavior. If a disapproved behavior is consistently associated with punishment, the behavior becomes a conditioned negative stimulus for a conditioned negative emotional response, e.g., anxiety about a possible punishment. Thus, anxiety about possible punishment leads to the inhibition of the behavior. In this manner a behavior that initially functioned as an operant antecedent for reinforcement is counter conditioned to function as a respondent antecedent for anxiety. The establishment of a system of behavioral inhibitions is what Eysenck described as conscience.

Eysenck (1976) thought that good conduct could be the result of socialization that establishes a system of conditioned inhibitions on behavior. Eysenck's hypothesis was that individual differences in susceptibility to conditioning result from the interaction of two temperament traits: Extraversion (E), and Neuroticism (N). Persons high on E are less responsive than persons low on E to the conditioning of operant and respondent responses. High N adds an emotional character to behavior, which often leads to an over reaction. Eysenck hypothesized that individuals who are low to average on both the E and N traits will be more likely to acquire an effective system of inhibitions or conscience.

Eysenck (1976, 1997) stated that a person high on the E trait has a low basal arousal of the neocortex and does not condition or acquire anxiety-based constraints or behavior as easily as a person with a high level of arousal in the neocortex (low E). He suggested the biological basis for E resides in the Ascending Reticular Activating System (ARAS). This system governs the functioning of the cortex, specifically the neocortex, and its response to incoming stimuli. One function of the cortex is to inhibit the activities of the lower brain centers. Thus, a highly aroused cortex more easily inhibits behavior. Because of their high basal level of cortical arousal, introverts (low E) are more likely to acquire emotional inhibitions on their behaviors than are extraverts (high E).

Eysenck (1976, 1997) reported that differences in the N trait are controlled by the autonomic nervous system, specifically visceral brain activation (VBA), which is coordinated by the hypothalamus and limbic system. A person low on the N trait reacts slowly and moderately to most emotional stimuli and ceases reacting when the stimuli are withdrawn. Conversely, a person high on the N trait is quickly and easily aroused emotionally and the arousal is more persistent.

Kemp and Center (in press) conducted a review of research examining Eysenck's personality theory in relation to antisocial behavior in children and adolescents. Forty-eight percent of 23 studies reviewed found support for the E trait in conduct problems. Likewise, 48% of 21 studies reviewed found support for the N trait in conduct problems. The level of positive findings in the studies reviewed was inconclusive. Further, none of the studies reviewed specifically examined Eysenck's hypothesis about the development of conscience being related to the combined effects of the E and N traits.

Eysenck's hypothesis predicted that those low on both E and N will exhibit better behavior than those high on the two traits. If data support this prediction, the suggested system of conditioned inhibitions that should be present in better-behaved individuals will be indirectly supported as will the presence of a better-developed conscience as defined by Eysenck. A test of Eysenck's hypothesis on the development of conscience could be done by comparing the level of conduct problems in individuals who are low on both the E and N traits with a contrast group that is high on both traits.

There have been a few previous studies employing cluster analysis that have revealed a relationship between combinations of scores on Eysenckian traits and behavior problems (Aleixo & Norris, 2000; McEwan, 1983; McEwan & Knowles, 1984; McGurk & McDougal, 1981). All of these studies defined behavior problems as present or absent in their samples based on the participants' adjudication status. Three of these studies found an interaction between the E and N traits and one did not. The purpose of the present study is to test for differences between school-age individuals with high versus low scores on a combination of the E and N traits.

Method

Setting

The setting for the study was in Cobb County, Georgia, which has the second largest school system in the state. Cobb County Schools serve approximately 93,000 students with approximately 13,000 of the total enrollment in special education. It is a very diverse school system as evident by the following ethnic break down of the students: Whites (66.08%), Black (22.35%), American Indians (.21%), Hispanic (5.96%), Asian (3.31%), and Multi-racial (2.09%). The study was conducted in a transitional learning center that serves the southern part of the county. A transitional learning center is an alternative education option for students suspended from their home schools. Approximately 21% of the high school and 41% of the middle school students in the population served by the transitional learning center qualified for free/reduced lunch according to the United State's Federal Government guidelines.

Subjects

All participants in the study were suspended from school for disciplinary reasons and attended the transitional learning center as an alternative to an out-of-school suspension. Consent to participate was obtained from both parents and students.

During the data collection period, 120 students attended the transition center and 84% agreed to participate in the study. Participants in the study (n = 98) were 77% male and 21% female. Fifty-one percent were African American; 28% were White; 10% were Hispanic; and 11% were Multi-Racial. Twenty-four percent of the participants were in the sixth grade; 23% were in the seventh grade; 28% were in the eighth grade; 11% were in the ninth grade; 9% were in the tenth grade; 2.5% were in the eleventh grade; and 3%

were in the twelfth grade. The age range of the participants was 11 years through 18 years with a mean age of 14 years. Eighty-three percent of the participants were from regular education placements and 17% were from special education placements. The final sample was pared down to n = 84 by eliminating all participants who scored more than one standard deviation above the mean on the Lie Scale in the Junior Eysenck Personality Questionnaire's standardization norms.

Instrumentation

Two instruments were administered to the participants: the Junior Eysenck Personality Questionnaire (JEPQ) (H. Eysenck & S. Eysenck, 1975) and the Externalizing Scale of the Youth Self-Report (YSR) (Achenbach, 1991). The JEPQ was used to assess personality. The Externalizing Scale of the YSR was used to assess self-reported conduct problems.

The JEPQ is a child version of the adult Eysenck Personality Questionnaire (1975). It is comprised of 81 items normalized on a sample of 3,387 children (1,751 males and 1,636 females). Ages of the sampled participants ranged from 7 through 15 years. The questionnaire assesses the three personality traits (P, E, and N) used in Eysenck's theory of personality and yields a Lie (L) Scale score assessing a person's inclination to give socially expected responses. Test-retest reliability scores on the P, N, E, and L scales gathered over a one month period averaged from r = .61 to .79 for children age 12 through 14 years. Internal reliability is moderate to high, r = .61 to .85 (H. Eysenck & S. Eysenck, 1975). The JEPQ was originally normalized on a sample of children from England. Middlebrook and Wakefield (1987) conducted a study with a sample of students from the United States. No statistically significant differences were

found between the means and standard deviation scores of American children and British children.

The YSR contains two broadband scales for problem behaviors: the Externalizing Scale and the Internalizing Scale. Only the Externalizing Scale of the YSR, consisting of 33 items, was used to assess conduct problems, such as disrespect for authority, bullying, fighting and lying. Students responded on a Likert scale ranging from zero to two. Two indicates a higher level of the behavior. Christenson (1992) found the YSR to be highly reliable and valid with excellent normalization procedures. Test-retest reliability is reported as having a median reliability of $\underline{r}$ = .81. The YSR has been found to discriminate between students with problem behaviors and those who do not have problem behaviors (Elliot & Busse, 1992).

Procedure

The two questionnaires were each administered individually or in small groups depending on the number of students entering the suspension unit on a daily basis. All questionnaires were administered at various times during the day depending on the availability of the subjects. Questionnaires were read to the students individually or in small groups of two to five students. The administration of the questionnaires lasted approximately 20-45 minutes. If there was an interruption in the administration of the questionnaires, the students were instructed to turn their questionnaires face down in front of them until testing could be resumed. If the interruption was longer than five minutes, questionnaires were collected and then redistributed following the interruption. The sequence of questionnaire presentation was counterbalanced with approximately half

of the students being given the JEPQ followed by the YSR and the other half being given the YSR followed by the JEPQ.

One of the investigators administered all assessment instruments. Participants were encouraged to ask questions if they did not understand an item on a questionnaire. The investigator recorded responses given to participants' questions. If another participant asked a question previously asked, the same response given to the first participant was given to the second participant.

Design

A three-group quasi-experimental design was used where the three groups represented three different combinations of scores on the E and N traits. Specifically, participants were grouped into the following combinations. There was a low E and low N group where low was defined as below the normative means for both trait scores. There was a high E and high N group where high was defined as above the normative mean for both trait scores. All participants who did not meet the criteria for one of these two groups went into a third mixed group. Thus, there was a fixed factor with three levels (high, low and mixed).

Results

A One-way ANOVA employing a Sheffe for post hoc analysis was used to test for differences between the levels of the independent variable and the dependent variable, i.e., YSR scores. To test Eysenck's hypothesis about behavioral inhibition, it was predicted that students low on both the E and N traits would have lower scores on the Externalizing Scale of the YSR than those high on both traits. This hypothesis was supported ($F = 4.448$, $p < .015$). The post hoc analysis indicated a significant difference

($p < .047$) where the low group ($n = 11$) was significantly lower ($M = 15.455$) than the high group ($n = 37$) ($M = 21.892$) on the YSR.

One additional source of support for the hypothesis from this data is the proportion of participants falling into the outlier categories of either low E and N or high E and N. Given that the sample is from a group of participants whose placement demonstrates some type of discipline problem, one would expect that there would be far fewer low E and N participants than high E and N participants, if Eysenck's hypothesis is valid. In fact, this is what was observed. The low E and N participants comprised only 13% of the sample while the high E and N participants comprised 44% of the sample. A Chi Square Test on the frequency of participants observed in each of the three categories with an assumption of equal distribution was also run (Chi Square = 15.5, $p < .000$), which confirmed that there was a statistically significant difference between the categories.

Discussion

The purpose of the study was to test Eysenck's hypothesis about the development of behavioral inhibitions or conscience. The research hypothesis predicted that participants with low L and low N trait scores would report less problem behavior than participants high on both traits. The results of this study support Eysenck's hypothesis that his E and N traits, in combination, are related to the acquisition of behavioral inhibitions.

The present study is limited by the use of an intact sample of students who were in an alternative class for students with a wide range of discipline problems. The study is also limited by the size of the sub-samples. The power of the statistical tests would be

greater if the size of the sub-samples could be increased. Unfortunately, a hypothesis related to combined, directional scores makes large samples of qualifying participants difficult to achieve. In fact, it would be a better test if more extreme scores than those used in this study could be employed, e.g., defining high and low as one or more standard deviations from the normative mean rather than just above or below the normative mean. Subsequent studies should attempt to increase sample size and possibly the degree of spread in trait scores for contrast groups. It would also be useful to examine Eysenck's hypothesis about personality traits and behavioral inhibition for a possible effect on the level of moral reasoning achieved by children and adolescents.

Eysenck (1976) also stated that the E trait is comprised of several sub-traits such as sociability, impulsivity and optimism or venturesomeness (S. Eysenck, 1981). He proposed that the link between the E trait and the acquisition of behavioral inhibitions may be more strongly related to one of these sub-traits than to the others or the E trait overall. It would also be useful for future research to examine the sub-trait structure of E and the strength of relationship between any such sub-traits and problems behavior.

Information on the susceptibility of children to the acquisition of behavioral inhibitions has the potential of being useful to parents, teachers and other socialization agents. If Eysenck's hypothesis were conclusively validated by further research, it would lay a foundation for intervention research to identify the most effective methods for establishing behavioral inhibitions in children with different levels of susceptibility to conditioning.

References

Achenbach, T. M. (1991). Youth Self-Report for Ages 11-18, Burlington, VT: University of Vermont.

Aleixo, P. A., & Norris, C. E. (2000). Personality and moral reasoning in young offenders. Personality and Individual Differences, 28, 609-623.

American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.) Washington, DC: Author.

Chess, S., & Thomas, A. (1987). Origins and evolution of behavior disorders: From infancy to early adult life. Cambridge, MA: Harvard University Press.

Christenson, S. L. (1992). Review of the Child Behavior Checklist. In J. Kramer & J. Conoley (Eds.), The eleventh mental measurements yearbook (pp. 164-166). Lincoln, NE: University of Nebraska Press.

Elliott, S. N., & Busse, R. T. (1992). Review of the Child Behavior Checklist. In J. Kramer & J. Conoley (Eds.), The eleventh mental measurements yearbook (pp. 166-169). Lincoln, NE: University of Nebraska Press.

Erikson, E. H. (1964). Insight and responsibility. New York: Norton.

Eysenck, H. J. (1976). The biology of morality. In T. Likona, G. Geis, & L. Kohlberg (Eds.), Moral Development and Behavior. New York: Holt, Rinehart, & Winston.

Eysenck, H. J. (1997). Personality and the biosocial model of anti-social and criminal behavior. In A. Raine, P. Brennan, D. Farrington, & S. Mednick (Eds.), Biosocial bases of violence (pp.21-37). New York: Plenum Press.

Eysenck, H. J., & Eysenck, S. B. G. (1975). Eysenck personality questionnaire.

San Diego: Educational and Industrial Testing Service.

Eysenck, S. B. G. (1981). Impulsiveness and antisocial behaviour in children. Current Psychological Research, 1, 31-37.

Francis, L. J., & Montgomery, A. (1993). Personality and school-related attitudes among 11- to 16-year-old girls. Personality and Individual Differences, 14(5), 647-654.

Hogan, R, (1975). Moral conduct and moral development: A psychological perspective. Psychological Bulletin, 79(4), 217-232.

Kemp, D., & Center, D. (in press). Antisocial behavior in children and Hans Eysenck's biosocial theory of personality: A review. Manuscript accepted for publication subject to revisions by International Journal of Disability, Development and Education.

Kohlberg, L. (1964). Development of moral character and ideology. In M. L. Hoffman & L. W. Hoffman (Eds.) Review of child development research, (Vol. 1). New York: Russell Sage Foundation.

Kohlberg, L. (1969). Stage and sequence: The cognitive-developmental approach to socialization. In D. Goslin (Ed.), Handbook of socialization theory and research. Chicago: Rand McNally.

Likona, T. (1991). Educating for character. New York: Barlam.

Maag, J., & Howell, K. (1991). Serving troubled youth or a troubled society? Exceptional Children, 58, 74-76.

McEwan, A. W. (1983). Eysenck's theory of criminality and the personality types and offences of young delinquents. Personality and Individual Differences, 4(2), 201-204.

McEwan, A. W., & Knowles, C. (1984). Delinquent personality types and the situational contexts of their crimes. Personality and Individual Differences, 5(3), 339-

344.

McMahon, R. J., & Wells, K. C. (1998). Conduct problems. In E. J. Marsh, & R. A. Barkley, (Eds.), Treatment of childhood disorders (2nd ed., pp. 111-112). New York: Gilford.

McGurk, B. J., & McDougall, C. (1981). A new approach to Eysenck's theory of criminality. Personality and Individual Differences, 2, 338-340.

Middlebrooks, K., & Wakefield, J. A. (1987). The Junior Eysenck Personality Questionnaire: An American sample. Personality and Individual Differences, 8, 471-474.

Nelson, C., Center, D., Rutherford, R., Walker, H. (1991). Serving troubled youth or a troubled society: A reply to Maag and Howell. Exceptional Children, 58, 77-79.

Nelson, C., Rutherford, R., Center, D., & Walker, H. (1991). Do public schools have an obligation to serve troubled children and youth? Exceptional Children, 57, 406-415.

Niehoff, D. (1999). The biology of violence. New York: Free Press.

Piaget, J. (1935). The moral Judgment of the child. New York: Free Press.

Rest, J. R., Cooper, D., Coder, R., Masanz. J., & Anderson, D. (1974). Judging the important issues in moral dilemmas – an objective test of development. Developmental Psychology, 10, 491-501.

Robins, L. N. (1978). Sturdy childhood predictors of adult antisocial behaviors: replication of longitudinal studies. Journal of Psychological Medicine, 8, 611-622.

Sprague, J., & Walker, H. (2000). Early identification and intervention for youth with anti-social and violent behavior. Exceptional Children, 66, 367-378.